

What is claimed is:

- 5 1. A method for capturing administrative processes in a machine-readable format, the administrative processes being processes that need to be implemented by an administrator for achieving different objectives in a local or a networked environment, the administrative processes comprising at least one administrative task and the administrative task comprising administrative commands, the method comprising the steps of:
 - a. creating a generic command framework to capture the structure of all types of administrative commands used in the administrative processes;
 - b. generating profiles by capturing the administrative commands in the generic command framework in a machine-readable format, the profiles being collections of machine-readable administrative commands that define an administrative task;
 - c. generating network maps, each network map comprising details of one or more servers in the networked environment;
 - d. generating administrative lists, each administrative list comprising one or more profiles that define administrative tasks, which constitute an administrative process;wherein each administrative list captures an administrative process in a machine-readable format, which can be processed by processing machines for automating execution of the administrative process.
2. The method of claim 1 wherein the step of generating administrative lists comprises defining associations between profiles present in the administrative list and one or more network maps, the association between a profile and one or more network maps defining the server(s) on which the administrative task defined by the profile needs to be performed.

3. The method of claim 1 wherein the administrative commands are captured in a machine-readable format by the step of writing them according to the generic command framework in a structured mark up language.
4. A method for automating execution of administrative processes in a local or a networked environment, the administrative processes comprising at least one administrative task and the administrative task comprising administrative commands, the method comprising the steps of:
 - a. creating a generic command framework that can be used to capture structures of all types of administrative commands used in the administrative processes;
 - b. generating profiles by capturing the administrative commands in the generic command framework in a structured mark up language to create profiles, the profiles being collections of administrative commands that define an administrative task;
 - c. generating network maps, each network map containing details of one or more servers in the networked environment;
 - d. generating administrative lists, each administrative list being a collection of one or more profiles and zero or more network maps, that define administrative tasks, which are required to be performed for executing an administrative process;
 - e. selecting a first set of administrative lists based on a selected administrative process, which is to be executed;
 - f. selecting the first profile from among the profiles contained in the selected first set of administrative lists;
 - g. processing the selected profile, the processing of selected profile comprising the steps of:
 - i. parsing the selected profile to generate events;
 - ii. executing the generated events using administered components, the administered components comprising at least one of local system

devices, networked system devices, software programs and system commands, which are used to execute the generated events;

- iii. collecting messages generated by administered components in response to the execution of generated events;
- iv. updating the selected profile based on the collected messages;
- v. deciding if the updated profile needs to be processed again, the decision being made based on the messages using which the selected profile has been updated;
- vi. if the updated profile needs to be processed again, then performing the steps of
 - a) selecting the updated profile for processing;
 - b) repeating step f for the selected profile;else performing the steps of
 - c) selecting next profile to be processed from the selected first set of administrative lists based on the administrative tasks to be performed; and
 - d) repeating step f for the selected new profile;

wherein the execution of administrative processes is automated by the automated processing of profiles that define the administrative tasks, which are required to be performed for executing the administrative processes.

5. The method of claim 4 further comprising the steps of:
- a. determining if the selected profile needs to be transformed before processing, the transformation being required when the selected profile needs to be converted from a first format of structured mark up language to a second format of the structured mark up language;
- if the selected profile needs to be transformed, then
- b. transforming the selected profile from the first format to the second format using a set of pre-defined rules;
- else
- c. processing the selected profile in the first format.

6. The method of claim 4 wherein an administrative list further comprises associations between the profiles present in the administrative list and one or more network maps, the association between a profile and one or more network maps defining the server(s) in the networked environment, on which the administrative task defined by the profile in the administrative list needs to be performed.
7. The method of claim 4 wherein the step of executing the generated events comprises the steps of:
 - a. directing the generated events to administered components using which the generated events can be executed; and
 - b. executing the generated events using the administered components to which the generated events have been directed.
8. The method of claim 4 wherein the generated messages comprise control messages and system messages.
9. The method of claim 4 wherein the step of updating the selected profile based on the collected messages comprises the steps of:
 - a. appending the generated messages in a structured mark up language to the selected profile; and
 - b. storing the updated profile.
10. A system for automating administrative processes in a local or a networked environment, the administrative processes comprising administrative tasks and the administrative tasks comprising administrative commands, the system comprising:
 - a. a profile generator for generating profiles in a structured mark up language, the profiles being collections of administrative commands that define an administrative task;

- b. a network map generator for generating network maps, the network maps containing details of one or more servers in the networked environment;
- c. an administrative list generator for generating administrative lists, each administrative list being a collection of one or more profiles that define administrative tasks, which are required to be performed for executing an administrative process;
- d. a front-end for enabling at least one function from among the functions of selecting profiles contained in administrative lists, reading the selected profiles and transforming the selected profiles; and
- e. a back-end comprising:
 - i. an event-driven machine for processing the selected profiles written in a structured mark up language; and
 - ii. one or more controllers for connecting the front-end with the event-driven machine for processing the selected profiles, the controllers passing the selected profiles from the front-end to the event-driven machine.

11. The system of claim 10 wherein the event-driven machine for processing the selected profiles comprises:

- a. one or more generators, which generate events by parsing the selected profile;
- b. one or more filters, the filters directing the generated events to administered components and causing execution of the generated events at the administered components, thereby leading to the generation of messages by the administered devices in response to the execution of the generated events; and
- c. one or more handlers, for updating the selected profile with messages generated by the administered components.

12. The system of claim 10 wherein the administered components comprise at least one of local devices, networked devices, software programs and system commands, which are used for executing the generated events.
13. The system of claim 10 wherein the controller further transforms the selected profile from a first format of structured mark up language to a second format of the structured mark up language, based on a set of pre-defined rules.
14. The system of claim 13 wherein the pre-defined rules are stored locally in the controller where the transformation of selected profiles is performed, or are stored outside the controller in the networked environment.
15. A computer program product, comprising a computer usable medium having a computer readable program code embodied therein, for capturing and automating the execution of administrative processes in a local or a networked environment, the administrative processes comprising administrative tasks and the administrative tasks comprising administrative commands, the computer program product comprising:
 - a. program instruction means for capturing the administrative commands in a generic command framework in a structured mark up language to create profiles, the profiles being collections of administrative commands that define an administrative task;
 - b. program instruction means for generating network maps, each network map containing details of one or more servers in the networked environment;
 - c. program instruction means for generating administrative lists, each administrative list being a collection of one or more profiles that define administrative tasks, which are required to be performed for executing an administrative process;

- d. program instruction means for selecting a first set of administrative lists based on a selected administrative process, which is to be executed;
- e. program instruction means for selecting the first profile from among the profiles contained in the selected first set of administrative lists;
- f. program instruction means for processing the selected profile, the program instruction means for processing the selected profile comprising:
 - i. program instruction means for parsing the selected profile to generate events;
 - ii. program instruction means for executing the generated events using administered components, the administered components comprising at least one of local system devices, networked system devices, software programs and system commands, which are used to execute the generated events
 - iii. program instruction means for collecting messages generated by administered components after the execution of generated events;
 - iv. program instruction means for updating the selected profile based on the collected messages;
 - v. program instruction means for checking if the updated profile needs to be processed again; and
 - vi. program instruction means for selecting the next profile contained in the selected first set of administrative lists.

16. The computer program product of claim 15 further comprising a program instruction means for transforming the selected profile before processing, the transformation being required when the selected profile needs to be converted from a first format of structured mark up language to a second format of the structured mark up language.

17. The computer program product of claim 15 wherein the program instruction means for executing the generated events further comprises:

- a. program instruction means for directing the generated events to administered components using which the generated events can be executed; and
 - b. program instruction means for causing execution of the generated events using the administered components to which the generated events have been directed.
18. The computer program product of claim 15 wherein the program instruction means for updating a profile based on the collected messages comprises:
- a. program instruction means for appending the generated messages in a structured mark up language to the selected profile; and
 - b. program instruction means for storing the updated profile.
19. A system for automating administrative processes in a local or a networked environment, the administrative processes comprising administrative tasks and the administrative tasks comprising administrative commands, the system comprising:
- a. a profile generator for generating profiles in a structured mark up language, the profiles being collections of administrative commands that define an administrative task;
 - b. a network map generator for generating network maps, the network maps containing details of one or more servers in the networked environment;
 - c. an administrative list generator for generating administrative lists, each administrative list being a collection of one or more profiles that define administrative tasks, which are required to be performed for executing an administrative process;
 - d. a front-end for enabling at least one function from among the functions of selecting a profile contained in administrative lists, reading the selected profile and transforming the selected profiles; and
 - e. a back-end comprising:

- i. an event-driven machine for processing the selected profile written in a structured mark up language,
the event-driven machine further comprising:
 - a) one or more generators, which generate events by parsing the selected profile;
 - b) one or more filters, the filters directing the generated events to administered components and causing execution of the generated events at the administered components, thereby leading to the generation of messages by the administered devices in response to the execution of the generated events; and
 - c) one or more handlers, for updating the selected profile with the messages generated by the administered components.
- ii. one or more controllers for connecting the front-end with the event-driven machine for processing the selected profile, the controllers transforming the profile from one format of structured mark up language to another format, if required, based on a set of pre-defined rules and passing the selected profile from the front-end to the event-driven machine.

20. The system of claim 19 wherein the administered components comprise at least one of local devices, networked devices, software programs and system commands, which are used for executing the generated events.